Notes From SUGI 23

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First Health

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Updated with information from SUGI 24

A New Logo

It contains 3 inverted pyramids instead of 1

The pyramids represent:

- **Intelligent Storage**

- **Intelligent Servers**

- **Intelligent Clients**

Intelligent Storage

- **Long variable names**
  - **Up to 32 characters, so names from external databases can be better accommodated**

- **Long dataset names**
  - **Up to 32 characters**
  - **Some operating system restrictions**

- **Long character variables**
  - **Up to 32K bytes**
  - **Better use COMPRESS=YES!**

Intelligent Storage

- **Librefs, filerefs, and format names remain a maximum of 8 characters long.**

- **Data integrity constraints**
  - **Guarantee integrity at dataset level!**
  - **Syntax and function similar to SQL**
    - **Compare to:**
      - **Constants**
      - **Other variables in the same observation**
      - **Values in other datasets.**

Intelligent Storage

- **Cross-environment datasets**

    - **No need for transport datasets!**
    - **Access on the reading platform is read-only**
    - **Can create non-native format**
    - **Might require SAS/CONNECT**

- **SAS Viewer and Universal ODBC Driver**
    - **Windows Only**
    - **Available Now**

Intelligent Storage

- **Improvements in SAS/ACCESS**

  - **Dynamic engines via libnames**
    - **No need to create ACCESS views**
    - **Uses database names when < 32 chars**

```
libname mydata oracle path=orpath;
```

  - **Better joins and use of indexes**

  - **Updateable single-table views**

Intelligent Servers

- **The server is what does the work**

- **The client provides the user interface**
  - **Or it might be another program, such as a web server**

- **In the SAS we know and love, the server and the client are usually the same**

- **Now, they can be separate**

Intelligent Servers

New Procedures

- **Data Analysis**

- **Business Analysis**

- **Analyst GUI interface for basic statistical analysis is production in 6.12**

- **See paper, SUGI Proceedings, and SAS Salesperson for details**

Intelligent Servers

Output Delivery System

- **A different way of producing output**

- **Currently, all procedures do their own output**

- **ODS separates processing from display**

- **This might be the single biggest and most obvious improvement in Version 7.**

Intelligent Servers

- **You have much more control over appearance**

- **All information created by procedures is now available in datasets**

- **You can insure a common style for all reports**

- **Text and HTML initially, more formats later** *(SUGI24: Text is not supported)*

Intelligent Clients

- **Usually PC's or workstations**
  - **Might be web browsers**

- **You've gotten a taste of this with SAS/CONNECT**

- **These were the real crowd-pleaser**

Intelligent Clients

- **Three types of Client Solutions**

- **SAS-Centric Solutions**
  - **They require SAS on the client**
  - **What most of us use now**

- **Web-Centric Solutions**
  - **Web Browsers, servers, etc.**
  - **Much Java and JDBC support**

- **Windows-Centric Solutions**

Intelligent Clients

Several Windows-specific clients

- **JazzFront** *(SUGI24: Enterprise Guide)*
  - **A full interface to SAS**
  - **Communicates with a server for processing**
  - **Provides access to data on PC and the server**
  - **With transparent data access, this is slick**
  - **Several ways to view projects and data**
  - **SAS Desktop is only a fraction of JazzFront**

Intelligent Clients

- **JazzReporter** *(SUGI24: Enterprise Reporter)*
  - **Restricted version of JazzFront for end users**
  - **ActiveX component lets you put SAS reports into other Windows programs**

- **SasEdit** *(SUGI24: Enhanced Editor)*
  - **Editor and interface that lets you create jobs on your PC and submit them remotely**
  - **Syntax sensitive , so it highlights keywords, finds unmatched quotes and comments, etc.**

Intelligent Clients

Communications Infrastructure

- **Asynchronous RSUBMIT**

- **Messaging and Message Queuing**
  - **Queue a message later processing**

- **Remote Objects**

Miscellaneous Info

- **PROC FORMAT supports dates, making it much easier to write special date formats ~~and informats.~~**

- **Version 7 on the Macintosh probably won't happen, because:**

  - **Porting is expensive**
  - **There's not enough demand**

Data Step Enhancements

- **FOOTNOTEs in data step output**

- **The DSD (delimiter sensitive data) option is now supported for the FILE statement as well as the in INFILE statement**

- **_FILE_ and _INFILE_ pseudo variables for access to file buffers**

- **Some optimization of data step code will be done - storing values in registers, etc.**

Data Step Enhancements

- **DATASTMTCHK system option to signal an error if certain data step keywords are used in the DATA statement:**

```
data new
    set keepme.bigdata;
```

 will cause an error instead of overwriting KEEPME.BIGDATA

Miscellaneous

- Common extension, SAS7BDAT, on all platforms

- Regular datasets are sharable, read-only, across all platforms. Indexes won't work cross-platform, nor will formats

- Only one transport dataset format, the CPORT format, which can store datasets and catalogs.

Miscellaneous

- **Can refer to datasets by quoted name, e.g.**

```
DATA 'd:\newstuff.sas7bdat';
   SET 'd:\oldstuff.sas7bdat';
```

- **Better compression**
  - **Numerics are compressed**
  - **Access by observation number**
  - **Can write your own algorithm**

Miscellaneous

- **Can concatenate libraries and catalogs**

  - **The concatenated libraries can have different engines**

  - **You can have all your data appear in one folder in the SAS Explorer (or JazzFront)**

  - **SUGI24: There's also a Favorites folder in which you can place frequently used objects**